

CHAPTER 4

SECTION 3.1

RADIATION ONCOLOGY

ISSUE DATE: March 27, 1991

AUTHORITY: [32 CFR 199.4\(b\)\(2\)\(x\)](#) and [\(c\)\(2\)\(viii\)](#)

I. CPT¹ PROCEDURE CODE RANGE

77261 - 77799

II. DESCRIPTION

A. Radiation therapy is also known as radiotherapy, radiation treatment, x-ray therapy, cobalt therapy, and proton beam therapy. The primary purpose of radiation therapy is to eliminate or shrink localized cancers (as opposed to cancers that have spread to distant parts of the body).

B. Stereotactic radiosurgery/radiotherapy is a method of delivering ionizing radiation to small intracranial targets. Stereotactic radiosurgery entails delivering a high dose in a single session. Stereotactic radiotherapy entails fractionating the dose over a number of treatments.

1. There are three main variations of stereotactic radiosurgery/radiotherapy: gamma beam or gamma knife, linear accelerator (linac), and charged particle beam (proton or helium ion). The three radiation delivery devices differ technically in several ways: source of radiation, size and shape of the radiation field, and range of radiation dosages.

2. The radiosurgical/radiotherapy procedure is preceded by a process of localizing the target, which can be performed with one or more of the following techniques: skull x-ray, cerebral angiography, computerized tomography, or magnetic resonance imaging.

III. POLICY

A. Radiation therapy (brachytherapy, fast neutron, hyperfractionated, and radioactive chromic phosphate synoviorthesis) is covered for those indications for which reliable evidence supports that the treatment is safe, effective and comparable or superior to standard care (proven).

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B. Hyperthermia is covered for those indications for which reliable evidence supports that the treatment is safe, effective and comparable or superior to standard care (proven).

C. Gamma knife radiosurgery/radiotherapy is covered for the following indications. This list of conditions is not all inclusive. Those conditions for which reliable evidence supports that the treatment is safe, effective, and comparable or superior to standard care, (proven) are also covered.

1. Arteriovenous malformations.
2. Benign brain tumors.
3. Acoustic neuromas (vestibular Schwannomas)
4. Pituitary adenomas.
5. Craniopharyngiomas.
6. Other tumors of the skull base.
7. Pineal region tumors.
8. Metastatic brain tumors.
9. High grade gliomas (glioblastoma multiforme, anaplastic astrocytomas).

D. Linear accelerator radiosurgery/radiotherapy is covered for the following indications. This list of conditions is not all inclusive. Those conditions for which reliable evidence supports that the treatment is safe, effective, and comparable or superior to standard care (proven) are also covered.

1. Arteriovenous malformations.
2. Acoustic neuromas (vestibular Schwannomas).
3. Metastatic brain tumors.

E. Proton beam radiosurgery/radiotherapy is covered for the following indications. This list of conditions is not all inclusive. Other indications are covered when safe, effective, and comparable or superior to standard treatment:

1. Arteriovenous malformations.
2. Glioblastoma multiformes.
3. Soft tissue sarcoma (liposarcoma).
4. Hodgkin's disease when conventional radiotherapy is contraindicated.
5. Acoustic neuromas.

6. Juvenile nasopharyngeal angiofibroma when provided as adjuvant therapy after failure of surgery or for extensive intracranial extension.
7. Cushing's disease or acromegaly caused by pituitary microadenomas.
8. As postoperative therapy in patients who have undergone biopsy or partial resection of the chordoma or low grade (I or II) chondrosarcoma of the basisphenoid region (skull-base chordoma or chondrosarcoma) or cervical spine.
9. As primary therapy for patients with uveal melanoma, with no evidence of metastasis or extrascleral extension, and with tumors up to 22 mm in largest diameter and 14 mm in height.
10. Prostate cancer.
11. Meningioma.
12. Low grade glioma (astrocytoma, grade I-II).

F. Helium ion beam radiosurgery/radiotherapy is covered for the following indications. This list of conditions is not all inclusive. Those conditions for which reliable evidence supports that the treatment is safe, effective, and comparable or superior to standard care (proven) are also covered.

1. As primary therapy for patients with melanoma of the uveal tract, with no evidence of metastasis or extrascleral extension, and with tumors up to 24 mm in largest diameter and 14 mm in height.
2. As postoperative therapy in patients who have undergone biopsy or partial resection of the chordoma or low grade (I or II) chondrosarcoma of the basisphenoid region (skull-base chordoma or chondrosarcoma) or cervical spine.

IV. EXCLUSIONS

- A. Proton radiosurgery is considered unproven for ependymoma.
- B. Helium ion beam radiosurgery/radiotherapy is considered unproven for the following indications:
 1. Arteriovenous malformations.
 2. Ependymoma.

V. EFFECTIVE DATES

- A. February 26, 1986, for proton beam radiosurgery/radiotherapy for arteriovenous malformations.
- B. March 1, 1988, for proton beam radiosurgery/radiotherapy for patients with Cushing's disease or acromegaly caused by pituitary microadenoma.

C. October 6, 1988, for gamma beam (gamma knife) radiosurgery/radiotherapy for treatment of arteriovenous malformation, benign brain tumors, acoustic neuromas, pituitary adenomas, craniopharyngiomas, other tumors of the posterior fossa and pineal region tumors.

D. June 18, 1990, for proton beam radiosurgery/radiotherapy for chordomas or chondrosarcomas.

E. January 1, 1994, for gamma beam (gamma knife) and linear accelerator radiosurgery/radiotherapy for metastatic brain tumors.

F. January 1, 1996, for proton beam radiosurgery/radiotherapy for uveal melanoma.

G. January 1, 1996, for helium ion beam radiosurgery/radiotherapy for uveal melanoma and chordomas or chondrosarcomas.

H. April 1, 1996, for linear accelerator radiosurgery/radiotherapy for arteriovenous malformations and acoustic neuromas.

I. April 26, 1996, for proton beam radiosurgery/radiotherapy for prostate cancer.

J. October 1, 1997, for gamma knife radiosurgery/radiotherapy for high grade gliomas (glioblastoma multiforme, anaplastic astrocytomas).

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